

Notice of Allowability

Application No.

10/645,258

Examiner

Jonas N. Strickland

Applicant(s)

MATACOTTA ET AL.

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 8/30/2004.
2. ☒ The allowed claim(s) is/are claims 1 and 11-14.
3. ☒ The drawings filed on 21 August 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/590,454.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Allowable Subject Matter

1. Claims 1 and 11-14 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Matacotta et al. discloses catalysts for the full oxidation of volatile organic compounds, particularly hydrocarbons, which comprises a compound having the formula $A_2B_3O_{6\pm d}$ where A is an alkaline-earth metal, an alkaline metal, a lanthanide, or a solid solution thereof and B is a transition metal (see abstract). Matacotta continues to disclose wherein A may be chosen from a Sr solid solution and B may be copper (p. 2, lines 18-24). The catalyst shows a surface area of $116 \text{ m}^2/\text{g}$ (p. 8, lines 10-13). While, Matacotta does not disclose a compound corresponding to the formula $A_{14}Cu_{24}O_{41}$, Matacotta et al clearly teaches wherein it is known in the art to use an active compound comprised of Sr, Cu, and O in treating hydrocarbons.

McCarron et al. teaches a superconductor byproduct having the formula $Sr_{14}Cu_{24}O_{41}$ (see abstract).

Aufdembrink et al. teaches ternary oxide phases, including copper oxide, which are superconductors are employed in catalytic processes, such as treating hydrocarbons. The ternary oxide phases include La-Sr-Cu (see abstract and col. 1, lines 5-25).

The cited prior art fails to disclose a method of preparing $Sr_{14}Cu_{24}O_{41}$ and $Ca_4Cu_5O_{10}$ under the process conditions as instantly claimed. The prior art fails to disclose the molar concentration of the aqueous solution as well as the heating temperatures as instantly claimed.

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Instant claim 1 recites wherein the catalyst comprises 5% to 20% by weight of the non-crystalline compound, which corresponds to $A_{14}Cu_{24}O_{41}$, where A is Sr and $B_4Cu_5O_{10}$, where B is Ca. The cited prior fails to teach the instantly claimed weight ratio. Nakatsuji et al. (US Patent 5,380,692) discloses a catalyst comprised of La, Sr, Cu, and O in the weight range of 0.1 to 70% by weight (col. 6, lines 33-39), but Nakatsuji et al. is geared towards reducing nitrogen oxides and is not directed towards reducing VOC's.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N. Strickland whose telephone number is 571-272-1359. The examiner can normally be reached on M-TH, 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonas N. Strickland
September 29, 2004



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